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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09/933,762	08/22/2001	Shinichi Tochihara	35 C15691	6174

5514 7590 06/05/2002

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NEW YORK, NY 10112

EXAMINER

SHAH, MANISH S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,762

Examiner

Manish S. Shah

Applicant(s)

TOCHIHARA ET AL.

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

2. Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: The ink jet recording steps are missing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eguchi et al. (# 6342289) in view of Kato et al. (# 5538549).

Eguchi et al. discloses an ink jet recording method and system, which employs an ink jet recording apparatus, which ejects the ink composition on the image-receiving layer (column: 9, line: 34-46; column: 10, line: 35-67). They also disclose that the ink receiving layer of the recording medium is a porous layer comprises alumina hydrate and a resin binder on a base material (column: 3, line: 10-25) and has a pore volume ranging from 0.1 to 1.0 ml/g (column: 8, line: 33-35) and has a BET specific surface area of ink receiving layer falls within a range from 20 450 m²/g (column: 8, line: 42-45). They also disclose that the ink employ in recording using dyes or pigmented coloring material, a resin in an aqueous medium (column: 8, line: 50-60). They also disclose that the ink of plural colors of at least cyan, magenta and yellow are used as the pigmented ink (column: 10, line: 35-45).

Eguchi et al. differs from the claim of the present invention in that: (1) the particle diameter of the pigment substantially fall within the range from 10 to 500 nm, and the proportion of pigment particles having a particle diameter of 300 to 500 nm is at most 30% based on the total number of particles of the pigment. (2) The resin contained in the pigment ink is within a range of from 0.001 to 10% by mass.

Kato et al. teaches that the particle diameter of the pigment substantially fall within the range from 0.05 to 0.3 μ m, and the proportion of pigment particles having a particle diameter of 0.05 to 0.3 μ m is at most 30% based on the total number of

particles of the pigment (column: 2, line: 1-5), and the resin contained in the pigment ink is within a range of from 1-10% by weight (column: 4, line: 3-10).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to incorporate the pigmented ink with the resin taught by the Kato et al. into the ink composition of the Eguchi et al. because it gives ink with excellent chronological stability, water fastness, resistance to abrasion and improves the fixing properties of the ink to the recording medium.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Suga et al. (# 5734403) discloses the ink jet recording apparatus and recording method using color ink (see Abstract; figure: 4-8).

(2) Ito (# JP 09-188064A) discloses the ink jet recording method and apparatus using the porous image receiving layer containing a alumina hydrate and binder (see Abstract; figure: 1).

(3) Eguchi et al. (# JP 08-132731) discloses the ink jet recording method using the porous image-receiving layer containing an alumina hydrate and binder (see Abstract).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (703) 305-1562. The examiner can normally be reached on 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-4900.


MSS
May 30, 2002


RACHEL GORDON
PRIMARY EXAMINER